THE EFFECT OF WORK STRESS AND EMOTIONAL INTELLIGENCE ON SELF-LEADERSHIP AMONG NURSES IN LEADERSHIP POSITIONS IN THE LESOTHO MINISTRY OF HEALTH AND SOCIAL WELFARE

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ABSTRACT

The current work environment increasingly requires independent individuals who are able to take the initiative and make responsible decisions in settings where they are not always supported by hierarchical superiors. In this context, the concept of self-leadership has been linked to professional and personal effectiveness. This study investigated the theory of self-leadership and factors that have an impact on the quality and use of the individual's self-leadership, namely work stress and emotional intelligence. For this purpose, a sample of 159 nursing leaders working at the Lesotho Ministry of Health and Social Welfare was selected. Self-leadership, work stress and emotional intelligence were measured using the Revised Self-leadership Questionnaire, the Experience of Work and Life Circumstances Questionnaire, and the Emotional Intelligence Index, respectively. Statistical analyses such as stepwise multiple regression analysis, correlations and a t-test were applied to determine the effect of work stress and emotional intelligence on self-leadership. Results indicate that the variance in self-leadership (total) scores can be attributed to EQI (self-regulation) and causes of work stress (physical working conditions). The independent t-test results also indicate no statistically significant differences in self-leadership between the different age groups in the sample. In the light of these findings, a few recommendations are made.

Keywords: leadership; nurses; work stress; quality of working life

INTRODUCTION

Leadership in the 21st century has seen many transformations and challenges due to globalisation and other societal changes (Palmer 2012, 21). The challenges include rapidly changing consumer markets, competition, technological changes, cost pressures and diversity. Consequently, organisations now require employees with high levels of capacity and skills in self-direction and self-influence, as well as the ability to respond more successfully and effectively to these challenges. According to Nel and Van Zyl (2015, 22), the type of leadership that will empower employees with such skills is called self-leadership. The focus in self-leadership is to bring out the internal resources within individuals to empower, influence and direct them to lead themselves and others effectively. Self-leadership is considered a foundation for being an effective leader in the 21st century (Bryant and Kazan 2013, 44; Irving 2011, 114).

Avolio (2011, 33) states that, unlike the external process of traditional leadership, self-leadership is an internal process that presents a strong initiative for the development and empowerment of leadership in individuals and organisations. Nel and Van Zyl (2015, 23) suggest that, in self-leadership, individuals possess an internal self-control system that allows them to engage in self-generated personal standards, self-evaluation and self-leadership concepts in managing their work activities. Self-leadership enables leaders to think effectively, behave congruently and relate empathetically to others. Self-leaders have a drive for autonomy, are creative in their decision-making and persevere in the face of adversity (Furtner, Hiller, Martini and Sachse 2012, 3). Furthermore, self-leadership enhances performance and self-efficacy and decreases absenteeism. It promotes goal setting and improves self-reflective skills as well as the ability to deal effectively with one's strengths and weaknesses (Furtner, Rauthmann and Sachse 2010, 1194).

Self-leadership as a strategy is demonstrated in a study by Karen (2007, 14) in which 400 managers in public service implemented self-leadership strategies such as self-goal setting, self-punishment and self-talk to improve their effectiveness. The results indicated that managers who implemented self-leadership skills were more effective in achieving their objectives than those who did not. Turkoz, Osman Mutlu, Tobak and Erdogan (2013, 44) reached the same conclusion in their study on athletes, namely that athletes who set personal goals and visualised successful performance were better performers than those who did not. Self-leadership is indeed a method of overcoming the challenges faced by leadership in modern organisations and should be incorporated into values and beliefs that govern an individual's everyday activities (Van Zyl 2012, 122).

Van Zyl (2012, 122) contends that individual differences also play a role in the use and quality of self-leadership skills. Effective leadership of the self requires maintaining high standards of total wellbeing. In other words, the ability of leaders to develop and practise self-leadership is influenced by their ability to deal with work stress and their level of emotional intelligence (Wu 2011, 4). Work stress is a harmful physical and

emotional response that occurs when job demands do not match individuals' capabilities or resources to such an extent that their psychological state deviates from normal functioning. As a result, they can no longer meet their responsibilities as members of the organisation (Unsworth and Manson 2012, 238). Work stress negatively influences individuals' sense of wellbeing and engagement in work activities, thereby decreasing their ability to access self-leadership skills (Unsworth and Manson 2012, 238). Employees experiencing work stress are more likely to be unhealthy, poorly motivated, less productive and less likely to engage in self-leadership behaviours (Kane 2009). When individuals are too stressed, they react negatively and view work stressors as more threatening, resulting in ineffective use of self-leadership skills and strategies (Houghton, Wu, Godwin, Neck and Manz 2012).

On the other hand, Tourangeau (2010, 627) argues that emotional intelligence improves self-leadership through emotion regulation and behaviour patterns. The feel-good emotions and ability to control emotions lead to positive thoughts which, in turn, increase positive self-talk and imagined experiences (Neck and Manz 2007, 24). In addition, leaders with high levels of emotional intelligence are better able to understand and manage their own emotions and are therefore more likely to engage in constructive thinking to build and maintain high levels of cooperation and trust within an organisation. Flexible thinking arising from emotional intelligence facilitates the identification of connections among divergent information, thus increasing the use of self-leadership strategies (Unsworth and Mason 2012, 238).

Emotional intelligence and self-leadership focus on similar processes of self-regulation. These two concepts are, however, distinct. Emotional intelligence is concerned with the ability to self-regulate emotions. The individual is able to apply emotional regulation strategies to increase positive emotional outcomes (Houghton et al. 2012, 6). Self-leadership focuses on self-regulation behaviours and thought processes without necessarily targeting emotions. However, emotions have a strong influence on both behaviour and thought. Therefore, the concepts of self-leadership and emotional intelligence are reciprocally related (Oosthuysen 2009, 24).

A certain level of emotional intelligence ability has also been demonstrated as being necessary for moderating the effects of work stress (Wu 2011, 4). The cognitive processes involved in the appraisal of stressful situations are associated with the conceptualisation of emotional intelligence. This means that the extent to which an individual experiences work stress is characterised in terms of emotional perception and assimilation. Emotional intelligence decreases the effects of job insecurity, improves adaptability to work stress and leads to better coping strategies (Gryn 2010, 27).

Brown and Fields (2011, 14) state that, by better understanding the relationship between self-leadership, work stress and emotional intelligence, resources can be used effectively to improve and build upon emotional intelligence skills, which contribute to self-leadership behaviours and management of work stress.

Besides work stress and emotional intelligence, Rickets, Carter, Place and McCoy (2012) present age as one of several individual differences that can affect development

and usage of self-leadership. According to Rickets et al. (2012), self-leadership skills are more accessible in younger individuals in the early career life stages (CLS) than older individuals in middle to late CLS. These age differences can be used as guiding posts in encouraging self-leadership within the nursing leadership environment.

The Lesotho Ministry of Health and Social Welfare is responsible for providing an efficient and compassionate healthcare and social welfare system, with the emphasis on the prevention and eradication of priority health and social welfare problems that are amenable to cost-effective interventions. Some of the challenges faced by healthcare organisations include continuously evolving technology, the rise of the informed healthcare consumer, quality orientation, increasing emphasis on providing value to the consumer, increased competition for limited healthcare resources, the shift in focus from illness and treatment to wellness and prevention, and a lack of resources and severe staff shortages (Wicker 2008, 22). These unique attributes of healthcare organisations make the world of nursing leadership challenging and complex, requiring diverse expertise and knowledge together with exceptional leadership capabilities (Tourangeau 2010, 627). It is important, therefore, that leaders in nursing have the inner drive and self-direction (self-leadership) to help the Ministry to achieve its objectives. Furthermore, we need to identify variables that could affect self-leadership among these leaders in order to improve their self-leadership skills.

PURPOSE OF THE STUDY

The primary aim of this research was to gather and investigate empirical evidence on the effects of work stress and emotional intelligence on the practice of self-leadership among nursing leaders in the Lesotho Ministry of Health. The secondary aim was to ascertain whether there are differences in self-leadership with regard to age.

Hypotheses

Null hypothesis 1:

H_0 The variance in self-leadership scores cannot statistically be explained by work stress and emotional intelligence among nurses in leadership positions in the Lesotho Ministry of Health and Social Welfare.

Alternative hypothesis 1:

H_1 The variance in self-leadership scores can statistically be explained by work stress and emotional intelligence among nurses in leadership positions in the Lesotho Ministry of Health and Social Welfare.

Null hypothesis 2:

H_0 There is no statistically significant difference between the scores achieved on self-leadership with regard to the age of nurses in leadership positions in the Lesotho Ministry of Health and Social Welfare.

Alternative hypothesis 2:

H_1 There is a statistically significant difference in the scores achieved on self-leadership with regard to the age of nurses in leadership positions in the Lesotho Ministry of Health and Social Welfare.

METHODOLOGY

Research Design

To address the research objectives and hypotheses, the study implemented the survey research method. Hatch (2009, 45) defines survey research as the collection of information from a sample of individuals through their responses to questions. It is an efficient method for systematically collecting data from a broad spectrum of individuals and in different settings. The method entails primary data collection, using questionnaires or interview schedules, to gather information and examine disparities among test persons with regard to the research variables (Stangor 2011, 42).

Participants

The study population (N) was 273 and consisted of nursing leaders employed at the Lesotho Ministry of Health and Social Welfare. Positions that were included are director of nursing services, manager of nursing services, senior nursing officers and nursing sisters in charge. According to Sekaran (2003), an N of 273 should be represented by approximately 159 respondents to be considered representative.

The sample of this study consisted of 159 nursing leaders (an accidental sample was used, meaning nursing leaders who were willing to participate were included), with over 56.8% respondents being senior nursing officers. Most officers (70%) had served for 10 years or more, while 92% of respondents had a qualification higher than Grade 12, with an additional three years. The respondents were composed of both male and female officers, with females being predominant at 87.1%. The majority of respondents (20) had three dependants. Furthermore, more than half of the respondents (79.4%) were married, 87.7% of respondents had Sesotho as their home language, while the age groups ranged from 20 to 60 years, with the majority falling within 36 to 50 years of age.

Data Collection and measuring Instruments

Participation in this study was entirely voluntary. Participants were free to refuse participation and could discontinue their participation at any time without being prejudiced. Data were collected at the premises of the Lesotho Ministry of Health and Social Welfare.

The measuring instruments applied were a biographical questionnaire, the Revised Self-leadership Questionnaire (RSLQ), the Experience of Work and Life Circumstances Questionnaire (WLQ) and the Emotional Intelligence Index (EQI). These instruments will be discussed below.

In the biographical questionnaire the respondents responded to eight items pertaining to age, name of position (position level), length of service, highest qualification, gender, dependants, marital status and home language.

The RSLQ was developed by Houghton and Neck (2002, 49) and consists of 35 items measuring behaviour-focused strategies, natural reward strategies and cognitive thought strategies. There are nine subscales in the RSLQ scale (Van Zyl 2012, 125). According to Houghton and Neck (2002, 49), behaviour-focused self-leadership is measured with five subscales identified as self-goal setting (five items), self-reward (three items), self-punishment (four items), self-observation (four items) and self-cueing (two items). Natural reward self-leadership is measured with a single five-item scale. Cognitive thought self-leadership is measured with three subscales, including visualising successful performance (five items), self-talk (three items) and evaluating beliefs and assumptions (four items).

The reliability of the RSLQ was established by Houghton and Neck (2002, 49) in two studies with respondents from two introductory management courses at a large Southeastern University (USA). These studies reported internal consistency with a coefficient alpha of 0.74. Nel and Van Zyl (2015, 29) also identified an internal reliability coefficient of 0.60.

The construct validity of the RSLQ was examined by means of a confirmatory factor analysis in a study by Houghton and Neck (2002, 49). Subsequent testing of the RSLQ in another student sample confirmed that the factor structure was stable and distinct from personality variables (Houghton, Bonham, Neck and Singh 2004, 437; Neubert and Wu 2006, 370).

The WLQ was developed by Van Zyl and Van der Walt (1994, 25) and indicates the level of work stress and its possible causes from within and outside the work environment. The questionnaire consists of two parts: experience of work, and circumstances and expectations (Oosthuysen 2009, 55). The experience part, scale A, measures the level of individual stress at work. The value obtained is an indication of whether the individual experiences a normal, high or very high level of work stress. The result is based on the answers of 40 questions (Oosthuysen 2009, 55).

The circumstances and expectations part analyses the causes of the individual's level of work stress. It comprises two subsections, scale B and scale C, totalling 76

questions about the individual's circumstances and unfulfilled expectations (Van Zyl and Van der Walt 1994, 25). The circumstances that are viewed as stressful may be found within and/or outside the work situation.

The reliability of the different fields of the WLQ has been calculated by the Kurder-Richards formula, and ranges from 0.83 to 0.92. The test-retest coefficients vary between 0.62 and 0.92. These reliabilities are satisfactory (Van Zyl and Van der Walt 1994, 25).

The WLQ has both construct and content validity. A construct validity study on the WLQ indicated a fairly significant relation between the different scales. A construct validity coefficient of 0.72 was reported (Oosthuysen 2009, 55). The WLQ also correlates well with the 16PF Questionnaire, the PHSF Relations Questionnaire and the Reaction to the Demands of Life Questionnaire (Van Zyl and Van der Walt 1994, 25).

The EQI is a 30-item instrument developed by Rahim (2011, 320) to measure five components defined by Goleman (1995), namely self-awareness, self-regulation, motivation, empathy and social skills. The EQI was designed on the basis of repeated feedback from respondents and an iterative process of exploratory and confirmatory factor analysis of various sets of items. Four successive factor analyses were performed to select items for the EQI (Ns: organisational members = 65, employed management students = 365, Chamber of Commerce members = 220, MBA and employed management students = 423). After each factor analysis, the items that loaded less than .50 and/or loaded on an uninterpretable factor were dropped or rephrased (Rahim 2011, 320).

The internal consistency reliability coefficient of the five subscales, as assessed with Cronbach's alpha, ranges between 0.58 and 0.95 (Brink 2009, 78).

Statistical Analysis

Descriptive statistics were used in this study to illustrate the demographic profile of the participants. Mean scores and standard deviations are presented.

Cronbach's alphas were used to determine the reliability of the variables in this study. Cronbach's alpha is a statistical procedure that involves correlating test items with one another. It is an adequate index of the overall consistency and reliability of instrument measures (Coakes, Steed and Ong 2010; Foxcroft and Roodt 2009, 14).

In this study, stepwise multiple regression analysis was applied to determine how much of the variance in the dependent variable (self-leadership) is explained when several independent variables (work stress and emotional intelligence) are theorised to simultaneously influence it. The R-square value is the amount of variance explained in independent variables by the predictors. The R-square value, the F statistic and its significance level are important values in interpreting the results and determining which variables have been significantly explained by the set of predictors (Hatch 2009).

Correlations were used as a complementary statistical tool in this study to determine whether there was a statistically significant relationship between the three variables. To interpret the correlation coefficient, the coefficient value was examined with its associated significance value (P) (Stangor 2011, 44).

An independent t-test was performed to determine whether there were differences in self-leadership scores with regard to different age groups (early CLS and middle CLS) as hypothesised in null hypothesis 2.

RESULTS AND DISCUSSION

Descriptive Statistics

The mean scores and standard deviations of the sample were measured by the RSLQ, WLQ and EQI. The RSLQ had a total mean score of 135.2784 (indicating strong use of self-leadership strategies: see Houghton and Neck 2002, 49), and a standard deviation of 21.18433. The WLQ mean score for level of work stress was 77.2887 (indicating normal levels of stress: see Van Zyl and Van der Walt 1994, 24), with causes outside the work environment being 35.9161 (also indicating normal levels of stress). Causes of work stress within the organisation ranged from 17.3355 to 44.0839 (indicating normal levels of stress). The EQI had a total mean score of 83.3003 (indicating low or poor levels of emotional intelligence: see Rahim, Psenicka, Polychroniou and Zhao 2002, 316) and a standard deviation of 39.07226.

Inferential Statistics

Reliability of the variables

Reliability results of the instruments or measures used in this study are presented in table 1. These reliability coefficients examine the internal consistency of the scales using Cronbach's alpha (Richardson 2005, 411).

Table 1:   Reliability coefficients

	Cronbach's alpha	No of items
Stress level (scale A)	.901	40
Causes of stress outside the work environment (scale B)	.813	16
Organisational functioning (C1)	.750	7
Task characteristics (C2)	.820	14
Physical working conditions (C3)	.794	7
Career matters (C4)	.824	8
Social matters (C5)	.820	7
Remuneration, fringe benefits and personnel policy (C6)	.771	10

EQI (self-awareness)	.873	7
EQI (self-regulation)	.868	6
EQI (motivation)	.893	6
EQI (empathy)	.880	6
EQI (social skills)	.851	6
Visualising successful performance	.803	5
Self-goal setting	.832	5
Self-talk	.758	3
Self-reward	.751	3
Evaluating beliefs and assumptions	.636	4
Self-punishment	.675	4
Self-observation	.799	4
Focusing on natural rewards	.735	5
Self-cueing	.851	2

The results show all scales to have an acceptable degree of reliability, where 0.90 and above is considered excellent, 0.80 up to 0.89 good, 0.70 up to 0.79 adequate and below 0.70 to have limited applicability (Polit and Beck 2008, 24). According to Polit and Beck (2008, 24), reliability equates to equivalence, consistency and homogeneity of the results of the study.

Stepwise multiple regression analysis

Results of the stepwise multiple regression analysis for self-leadership total are presented in table 2.

Table 2:   Model summary for self-leadership total (N = 159)

R	R-square	Adjusted R-square	Std error of the estimation
. 394	.155	.144	.19.59567

Predictors: (Constant), EQI (self-regulation), physical working conditions

ANOVA

Model		Sum of squares	Df	Mean square	F	Sig.
1	Regression	10745.008	2	5372.504	13.991	.000
	Residual	58366.494	152	383.990		
	Total	69111.502	154			

Predictors: (Constant), EQI (self-regulation), physical working conditions

COEFFICIENTS

Model	Standard coefficients	T	Sig.
	Beta		
(Constant)		26.080	.000
EQI (self-regulation)	-.301	-4.042	.000
Physical working conditions	.250	3.360	.001

Highly significant at p≤ 0.01 (2-tailed)*

*Significant at p**≤ 0.05 (2-tailed)*

Based on the results provided in table 2, the variance in self-leadership (total) scores can be attributed to EQI (self-regulation) and causes of work stress (physical working conditions). The variance is explained by 15,5%, and the model is statistically highly significant with the F value at 13.991, p = .000**.

The coefficients indicate an inverse relationship between self-leadership (total) and EQI (self-regulation), while physical working conditions relate positively to self-leadership (total). The results show that a high score on the EQI (self-regulation) correlates with a decrease in self-leadership for the participants in this study. The positive relationship between self-leadership (total) and physical working conditions means that a high score in physical working conditions will give rise to high self-leadership.

Correlations

The correlation results presented in this section are complementary to the above multiple regression analysis results. The results indicate whether there is a relationship between self-leadership (as measured by the RSLQ), work stress (as measured by the WLQ) and emotional intelligence (as measured by the EQI) in the profession of nursing leadership.

This section highlights only significant and highly significant relationships that provide more insight into the effect of the employees' work stress and emotional intelligence on self-leadership.

Table 3 shows correlation results between the dependent variable (self-leadership) and the independent variable (work stress and emotional intelligence).

Table 3: Correlation results for the total scores of self-leadership, emotional intelligence and work stress (N = 159)

	Self-leadership total	Emotional intelligence total	Work stress total
Self-leadership total Pearson correlation Sig. (2-tailed)	1	r = -.293 p = .000**	r = .095 p = .239
Emotional intelligence total Pearson correlation Sig. (2-tailed)	r = -.293 p = .000**	1	r = .061 p = .453
Work stress total Pearson correlation Sig. (2-tailed)	r = .000 p = .239	r = .061 p = .453	1

*N=155: **. Correlation is significant at the 0.01 level (2-tailed)*

According to table 3 above, there is no statistically significant relationship between the total scores of self-leadership and total scores of work stress, as well as between the total scores of emotional intelligence and total scores of work stress. There is, however, a statistically highly significant inverse relationship between the total scores of emotional intelligence and the self-leadership total, where r = -.293; p = .000**.

In light of the above stepwise multiple regression analysis results and correlation results, null hypothesis 1, namely that the variance in self-leadership scores cannot statistically be explained by work stress and emotional intelligence among nurses in leadership positions in the Lesotho Ministry of Health and Social Welfare, is therefore rejected.

The alternative hypothesis 1, namely that the variance in self-leadership scores can statistically be explained by work stress and emotional intelligence among nurses in leadership positions in the Lesotho Ministry of Health and Social Welfare, is therefore accepted.

Differences

An independent t-test was conducted to evaluate whether there are age differences with regard to self-leadership for the participants in this study. In table 4 the results of the independent t-test are presented. Table 4 illustrates that there are no significant age differences with regard to early CLS and middle CLS groups.

Table 4: Age differences with regard to self-leadership (N = 159)

Variable	Groups	N	Mean	Standard deviation	Sig.
Visualising successful performance	Early CLS Middle CLS	68 74	20.6176 19.7973	3.52403 4.30349	.218 .215
Self-goal setting	Early CLS Middle CLS	68 74	21.1199 20.3514	3.25627 4.07946	.219 .215
Self-talk	Early CLS Middle CLS	68 74	11.0441 10.7703	2.57099 3.16897	.575 .571
Self-reward	Early CLS Middle CLS	68 74	10.3971 10.0541	3.36416 3.18340	.534 .534
Evaluating beliefs and assumptions	Early CLS Middle CLS	68 74	15.0588 14.2838	2.66476 3.37404	.133 .130
Self-punishment	Early CLS Middle CLS	68 74	15.3382 15.5000	3.08395 3.57023	.774 .773
Self-observation	Early CLS Middle CLS	68 74	16.4853 15.8243	3.02967 3.52431	.235 .232
Focusing on natural rewards	Early CLS Middle CLS	68 74	20.0294 19.5541	3.53224 4.24955	.472 .468
Self-cueing	Early CLS Middle CLS	68 74	7.4118 7.8378	2.15265 2.32336	.260 .259
Self-leadership total	Early CLS Middle CLS	68 74	137.5023 133.9730	18.57166 22.99730	.319 .314

Statistically significant at p ≤ .05

In light of the above results, null hypothesis 2, namely that there is no statistically significant difference in the scores achieved on self-leadership with regard to the age of nurses in leadership positions in the Lesotho Ministry of Health and Social Welfare, is therefore accepted.

CONCLUSIONS

Descriptive Statistics

Although the nurses in leadership positions seemed to experience normal levels of stress and strong self-leadership abilities, their emotional intelligence levels seemed to be low. Tourangeau (2010, 625) indicates that nursing leaders might not be effective in their use of emotional intelligence due to the fact that nurses in general are not encouraged to exhibit emotions at work, as it is considered to reflect a lack of professionalism. Nursing leaders have therefore learnt to suppress their emotions and instead exercise more control in their jobs through self-leadership. However, Shirey, Ebright and McDaniel (2013, 24)

state that by suppressing their emotions, nursing leaders are denying themselves one of the best tools in combating the effects of work stress.

Inferential Statistics

Reliability of the variables

The reliability coefficients of all the instruments and scales seem to indicate acceptable degrees of reliability (see table 1). The questionnaires therefore seemed to be suitable for application in this study.

Stepwise multiple regression

As evident in table 2, self-leadership (total) was not influenced by work stress (total), but by the EQI dimension (self-regulation) and work stress dimension (physical working conditions).

The inverse relationship between self-leadership (total) and self-regulation in this study indicates that an increase in self-regulation can lead to a decrease in the use of self-leadership skills. This finding is mirrored in Neck and Manz's explanation (2007, 29) that control and regulation of thoughts and behaviours are marginal to self-leadership, as self-leadership refers to control and regulation of thoughts and behaviours. Self-leadership is thus rooted in a cognitive-behavioural domain, and might not necessarily influence, or might even decrease, affect emotion (Furtner et al. 2010, 1194).

In contrast, Moafian and Ghanizadeh (2009) argue that effective self-regulation leads to greater self-leadership. Effective self-regulation assists individuals in generating causal attributions, resulting in emotional reactions that either enhance or minimise damage to self-efficacy beliefs, increasing self-leadership skills. Recent research has also provided some empirical evidence in support of this relationship (Sharma 2011, 44).

Furthermore, good physical working conditions are found to positively influence self-leadership (total). Physical working conditions include the availability of resources needed to execute the job, as well as the provision of adequate, pleasant physical working conditions (Rickets et al. 2012). Sahin (2011, 1789) suggests that adequate or good physical working conditions can increase self-leadership by promoting feelings of optimism and competency within an individual. Adequate resources with which to carry out tasks can play an extrinsic motivational role, as they are instrumental in achieving work goals (Sharma 2011, 44).

Sahin (2011, 1789) also reports that employees' favourable view of their physical working environment (such as availability of resources) positively affects their practice of self-leadership (Neck 2006; Bramming 2008). Furthermore, adequate working conditions such as availability of information can lead to an increase in self-leadership strategies such as self-observation, where employees condition themselves to use

environmental information and pleasant working conditions to improve work behaviour (Bramming 2008).

Correlations

The correlation results (see table 3) indicate a relationship between emotional intelligence and self-leadership. According to the negative correlation, emotional intelligence decreases when self-leadership increases, and vice versa. However, Boss and Sims (2008, 142) and Houghton et al. (2012, 16) found a positive relationship between emotional intelligence and self-leadership. This means that individuals who are high in emotional intelligence are likely to be effective in leading themselves. Likewise, high self-leadership might help individuals to become more emotionally intelligent (Furtner et al. 2012, 6), contrary to the results of this study.

Differences

The results presented in table 4 illustrate no statistically significant differences in self-leadership scores between the age groups in the study sample. In other words, respondents' levels of self-leadership in this study were the same, irrespective of age. However, Rickets et al. (2012), Kazan (1999, 36), as well as Ugurluoglu, Saygili, Ozer and Santas (2013,) found statistically significant differences in age groups with regard to self-leadership. Accordingly, they report that younger individuals use self-leadership strategies more than older individuals. Rickets et al. (2012) explain that, although younger employees have less to lose in terms of career investment, they are inclined to take risks and implement more self-leadership strategies when embarking on a job. These strategies are used by younger individuals to establish themselves and promote personal effectiveness in their careers (Rickets et al. 2012).

RECOMMENDATIONS

It is important that nursing leaders improve their emotional intelligence levels. They should be able to manage their emotions in the healthcare environment. Training to develop verbal and written communication skills of nursing leaders will be of value in this regard.

In addition, it seems that physical working conditions can improve self-leadership skills. Conditions such as the non-availability of job equipment (e.g. electronic equipment, stationery, and tools), overcrowding, noise, a lack of resources, air pollution, reduced lighting, poor ergonomics, poor office space and inflexible or unpredictable hours might contribute to poor self-leadership skills (or the ability to exercise effective self-leadership skills). Individuals in contact with human suffering and people's reactions to it, as is the case in nursing, can include these as factors affecting workplace

conditions and, in turn, contribute to decreased levels of self-leadership (Gibbens 2007, 72).

Employers and people involved in the physical working circumstances of nursing personnel in leadership positions should therefore make sure that these circumstances are of such a nature that they enhance the practice of effective self-leadership skills.

Results indicate that emotional intelligence (self-regulation) gives rise to lower levels of self-leadership. These results are contradictory to what was expected. Some research supports this tendency and some research found the opposite. Research by Neck and Manz (2007, 24) and Furtner et al. (2010), for instance, supports the findings of the current study by indicating that self-leadership is rooted in a cognitive-behavioural domain and might not necessarily influence, or might even decrease, affect emotion (Furtner et al. 2010, 6). Furtner et al. (2010, 6) indicate that nursing leaders could have the perception that revealing emotions at work reflects a lack of professionalism. Nursing leaders might therefore have learnt to suppress their emotions, and instead exercise more control in their jobs through self-leadership. However, Moafian and Ghanizadeh (2009) argue to the contrary and say that emotional intelligence and effective self-regulation do lead to greater self-leadership. It is therefore recommended that more research be done on the effect of emotional intelligence and self-regulation on self-leadership among nursing personnel in leadership positions.

Self-leadership demands that more research be conducted on its potential to enhance individual performance, effectiveness and adaptation, as well as its potential to substitute formal leadership (Dahl 2012, 38). However, the focus in previous studies has been on the commercial context. It is therefore necessary to explore the role of self-leadership in other contexts. The current research serves as a good foundation for future research on the effects of work stress and emotional intelligence on self-leadership among nursing leaders.

This study was carried out in a specific cultural context. Empirical research efforts could also be directed to further examination of the cultural aspects of self-leadership, as well as emotional intelligence and work stress. Dahl (2012, 38) states that most research on self-leadership has been conducted in the USA, and recently in Asia (Dahl 2012). Therefore, there is a need for more research on how self-leadership strategies can be used in an African context.

Future research in the nursing environment should also be conducted to replicate the findings of this investigation. When additional analyses are conducted, investigators should consider using other statistical techniques, such as hierarchical regression or structural equation modelling, as well as more objective measures that are not self-reporting, to further validate the results. Lastly, future research might explore the differences in age groups in a longitudinal study to examine whether there are changes in self-leadership among the current younger group as they grow older.

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